

INSPECTION REPORT

Report no. 70550460-TDT 06-59784A
Client Wenzhou Cantor H.V. Electric Manufacturing
Co. Ltd
Zhejiang, China
Reference -
Concerning type testing
Date March 21, 2006 to June 7, 2006
Place Xi'an, China
Object metal-oxide surge arrester without gaps
Type Complete type series YH 10W-3-42 kV
Manufacturer Wenzhou Cantor H.V. Electric Manufacturing
Co. Ltd
Zhejiang, China

REQUIREMENTS

As per IEC 60099-4 Second Edition (2004-05).

INSPECTION PROGRAMME

The programme was specified by KEMA Nederland B.V.
For the programme we refer to page 3.

SUMMARY AND CONCLUSION

The results obtained relate only to the work ordered and to the material inspected.
The arrester withstood all type tests as per inspection program of page 3.

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This B-report consists of:
11 pages
2 annexes (42 pages)

KEMA Nederland B.V.



P.G.A. Bus
KEMA T&D Testing Services
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Arnhem, August 28, 2006

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MATERIAL DATA**Metal-oxide surge arrester without gaps**

Type		Series YH 10W-3-42 kV
Manufacturer		Wenzhou Cantor H.V. Electric Manufacturing Co. Ltd Zhejiang, China
Housing material		polymer
Rated voltage U_r	kV	3-42
Reference voltage (1 mA)	kV	$\geq 3-42$
Rated frequency	Hz	50
Nominal discharge current	kA	10
Continuous operating voltage U_{cov}	kV	2,4-33,6
Residual voltage at		
- nominal discharge current 8/20 μs	kV	$\leq 8,5-119$
- switching current 30/60 μs	kV	$\leq 7,3-102,2$
- steep current 1/10 μs	kV	$\leq 9,8-137,2$
Line discharge class		1
Housing insulation level		
- lightning impulse	kV	12-160
- power frequency	kV	7-80
Arrester mechanical load		
- torsional	Nm	50
- cantilever	N	147
Block dimensions		
- diameter	mm	53
- height	mm	22
Number of metal-oxide blocks		1-14
Rated short-circuit withstand current	kA	-

The exact data of each type of arrester from this series as well the drawings are summarized in annex A, page 1 to 18.

INSPECTION PROGRAM

The inspection program was specified by KEMA. All measurements and tests are in accordance with IEC 60099-4 (2004-05).

	Kind of test	Standard	Clause
1	COMPLETE ARRESTER		
1.1	Reference voltage measurement	IEC 60099-4	7.2
1.2	Internal partial discharge test	IEC 60099-4	8.8
1.3	Mechanical tests	IEC 60099-4	
1.3.1	Moisture ingress test	IEC 60099-4	10.8.13
1.3.2	Weather ageing test	IEC 60099-4	10.8.14
2	ARRESTER HOUSING		
2.1	Lightning impulse voltage test	IEC 60099-4	8.2.6
2.2	Power frequency voltage test, wet	IEC 60099-4	8.2.8
3	ARRESTER SECTION		
3.1	Residual voltage test	IEC 60099-4	
3.1.1	Lightning impulse	IEC 60099-4	8.3.2
3.1.2	Switching impulse	IEC 60099-4	8.3.3
3.1.3	Steep current	IEC 60099-4	8.3.1
3.2	Long duration current impulse withstand test	IEC 60099-4	8.4.3
3.3	Operating duty test	IEC 60099-4	
3.3.1	Accelerated ageing test	IEC 60099-4	8.5.2
3.3.2	Conditioning	IEC 60099-4	8.5.4.1
3.3.3	High current impulse surge operating duty test, application of impulses	IEC 60099-4	8.5.4.2